

## DATASHEET

### $\beta$ -Amyloid Peptide (1-40) (human)

#### Product overview

<b>Name</b>	$\beta$ -Amyloid Peptide (1-40) (human)
<b>Cat No</b>	HB8758
<b>Description</b>	$\beta$ -Amyloid (1-40) protein fragment.
<b>Biological description</b>	The $\beta$ -Amyloid (1-40) peptide is one of the two main amyloid- $\beta$ peptides implicated in Alzheimer's disease.
<b>Alternative names</b>	A $\beta$ 1-40, A $\beta$ 40
<b>Biological action</b>	Peptide

#### Solubility & Handling

<b>Storage instructions</b>	-20 °C
<b>Solubility overview</b>	Soluble in 1.0% NH <sub>4</sub> OH
<b>Handling</b>	Please note that this product is supplied as a lyophilized solid and may be very hard to visualize.

Amyloid beta peptides are prone to aggregation and as such, there are a variety of published methods for handling amyloid beta peptides.


We recommend using NH<sub>4</sub>OH with this product - you should use 1.0% NH<sub>4</sub>OH as the solvent followed by buffer (for example 1X PBS).

1. Add 1.0% NH<sub>4</sub>OH directly to the lyophilized peptide (~70-80  $\mu$ l for 1 mg of peptide). Do not store the peptide in 1.0% NH<sub>4</sub>OH.
2. Immediately dilute your solution to a concentration of ~1 mg/mL or less with 1X PBS or alternative buffer.
3. Vortex gently to mix (less than 1 minute).

Note: This method may not completely remove pre-aggregates. Vortexing may encourage seeding and further aggregation of the peptide.

**Important** This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

#### Chemical Data

<b>Chemical name</b>	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV
<b>Molecular Weight</b>	4329.86
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>194</sub> H <sub>295</sub> N <sub>53</sub> O <sub>58</sub> S
<b>Sequence (one letter)</b>	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV
<b>CAS Number</b>	131438-79-4
<b>PubChem identifier</b>	131954545
<b>SMILES</b>	CCC(C)C(C(=O)NC(C(C)CC)C(=O)NCC(=O)NC(CC(C)C)C(=O)NC(CCSC)C(=O)NC(C(C)C)C(=O)NCC(=O)NCC(=O)NC(C(C)C)C(=O)NC(C(C)C)C(=O)O)NC(C(C)NC(=O)CNC(=O)C(CCCCN)NC(=O)C(CC(=O)N)NC(=O)C(CO)NC(=O)CNC(=O)C(C(C)C)NC(=O)C(CC(=O)O)NC(=O)C(CCC(=O)O)NC(=O)C(C)NC(=O)C(CC1=CC=CC=C1)NC(=O)C(CC2=CC=CC=C2)NC(=O)C(C(C)C)NC(=O)C(C(C)C)NC(=O)C(CCCCN)NC(=O)C(CCC(=O)N)NC(=O)C(CC3=CNC=N3)NC(=O)C(CC4=CNC=N4)NC(=O)C(C(C)C)NC(=O)C(CCC(=O)O)NC(=O)C(CC5=CC=C(C=C5)O)NC(=O)CNC(=O)C(CO)NC(=O)C(CC(=O)O)NC(=O)C(CC6=CNC=N6)NC(=O)C(CCCNC(=N)N)NC(=O)C(CC7=CC=CC=C7)NC(=O)C(CCC(=O)O)NC(=O)C(C)NC(=O)C(CC(=O)O)N

<b>InChiKey</b>	FEWOUVRMGWFWIH-UHFFFAOYSA-N
<b>MDL number</b>	MFCD00130509
<b>Appearance</b>	Lyophilized white powder
<b>Protein length</b>	40

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## References

### **Amyloid Beta-peptides 1-40 and 1-42 form oligomers with mixed $\beta^2$ -sheets**

Baldassarre M *et al* (2017) Chem Sci 8(12)

**PubMedID** [29568473](#)

### **Plasma amyloid Beta 40/42 ratio predicts cerebral amyloidosis in cognitively normal individuals at risk for Alzheimer's disease**

Vergallo A *et al* (2019) Alzheimers Dement 15(6)

**PubMedID** [31113759](#)

### **High-precision plasma Beta-amyloid 42/40 predicts current and future brain amyloidosis**

Schindler SE *et al* (2019) Neurology doi: 10.1212/WNL.0000000000000808

**PubMedID** [31371569](#)

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